

FAMILY SUPPORT WITH DIET COMPLIANCE IN ELDERLY WITH DIABETES MELLITUS  
IN EAST JAKARTA

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**Abstract:** Diabetes mellitus is a chronic condition that needs to be managed with monitoring and control. Putting a diabetic mellitus diet into practice is one method. One of the things that can influence diet compliance is family support. The objective is to provide a general picture of how family support and dietary compliance relate in elderly diabetic patients. This quantitative study uses a cross-sectional approach and an analytical-descriptive design. The study's target demographic was an aged group in East Jakarta with diabetes mellitus. 64 individuals made up the sample in this study. Purposive sampling, a type of non-probability sampling, was utilized as the sample method in this study. Chi-square test was employed in data analysis. According to the findings, up to 40 individuals (62.5%) and 34 people (53.1%), respectively, among the elderly have strong family ties and follow a healthy diet. The findings of the statistical analyses revealed a strong correlation between family support and dietary adherence in elderly diabetes mellitus participants ( $p$ -value = 0.028; OR = 3.714). Family support and dietary adherence have a significant connection in elderly diabetes mellitus patients.

**Keywords:** family support; dietary adherence; elderly

### Introduction

According to the International Diabetes Federation (2021), the number of diabetics among Indonesians aged 20 to 79 is estimated to be 19.5 million, or 10.6%. With this figure, Indonesia has the fifth-highest percentage of diabetes worldwide. The highest prevalence in Indonesia, at 3.4%, is found in the DKI Jakarta province, according to Riskesdas statistics (2018). Diabetes mellitus is more common in the East Jakarta area than in any other part of Jakarta, with a prevalence of 15.50% in those aged 65 to 74. Before the age of 70, diabetes mellitus is thought to be the cause of 2.2 million fatalities, primarily in nations with poor to moderate economic status. In fact, it is predicted to grow by an additional 600 million people by 2035 (Ministry of Health RI, 2018). According to Mela and Barkah (2002), diabetes also accounts for 6.7 million deaths, or one every five seconds.

According to Lusy, Purwaningsih, and Rosalina (2018), since diabetes mellitus is a chronic condition, ongoing monitoring and supervision are crucial to controlling the condition. If diabetes is not managed effectively and properly, complications can happen. Control of Diabetes Mellitus can be accomplished by managing the patient's diet to avoid complications (Oktavia, 2022). Susanti and Sulistyarini (2013) advise adhering to the 3J criteria when implementing the diabetic mellitus diet since the diet prescribed must be able to accommodate people with the condition. The number of calories, varieties of food, and eating schedule—collectively known as the "3 J" guidelines—are the primary components of maintaining a diabetes mellitus diet (Oktavia, 2022).

Following a diabetic mellitus diet with compliance demonstrates obedience and discipline in the diet that people with diabetes mellitus are required to follow (Irawati & Firmansyah, 2020). Because diabetes mellitus cannot be cured but can be treated, following the suggested diet is crucial to preserving stable blood glucose levels in those who have the illness. Noncompliance with dietary therapy by an older adult can result in uncontrolled blood sugar levels and might deteriorate their health (Dewi et al., 2018). The family's support is crucial for the implementation of the diabetic mellitus diet (Susanti & Sulistyarini, 2013). For persons with diabetes mellitus, family support is beneficial when dieting. According to Bangun et al. (2020), one of them is that it can aid in regulating the diet that

health professionals advise. The presence of family support may have an impact on diet compliance (Irawati & Firmansyah, 2020).

According to Dwi & Rahayu's research (2020), family support is one of the factors that affect dietary compliance and has an OR value of 0.225, meaning that it has the potential to boost adherence by 2.25 times. The study by Oktavera, Putri, and Dewi (2021) on the connection between family support and dietary compliance in people with type 2 diabetes mellitus also revealed a p-value of 0.002, indicating that there was a significant connection between family support and dietary compliance in people with type 2 diabetes mellitus. An association between family support and dietary adherence was found by Nurambiya & Ami (2022), as indicated by their p-value of 0.004.

Family support affects dietary compliance in people with diabetes mellitus, according to the description above. The authors are therefore interested in the connection between family support and dietary compliance in individuals with diabetes mellitus.

**Method**

In order to determine whether there is a relationship between the variables, a quantitative descriptive-analytic study approach was adopted. In this study, a cross-sectional strategy was adopted. East Jakarta served as the site of this study's May 2023 fieldwork. In this study, 64 elderly persons in East Jakarta's Kramat Jati District with diabetes mellitus served as the sample. The sampling strategy employs a nonprobability sampling approach. The Hensarling Diabetes Family Support Scale (HDFSS), a family support questionnaire with 29 questions, and the Perceived Diabetic Adherence Questionnaire (PDAQ), a dietary compliance questionnaire with 9 questions, were used to collect the data.

**Results and Discussion**

**Table 1 Frequency Distribution of Elderly Characteristics in East Jakarta**

<i>Variable</i>	<i>Category</i>	<i>Frequency</i>	<i>Presentage</i>
<i>Age</i>	60 -74 Yo	56	85.5
	75 – 90 Yo	8	12.5
<i>Gender</i>	Man	23	35.9
	Woman	41	64.1
<i>Education</i>	Low education level	35	54.7
	Higher education level	29	45.3
<i>Duration of illness (Diabetic)</i>	Below 5 years	32	50.0
	Above 5 Tahun	32	50.0
<i>Family Support</i>	Supported	34	53.1
	Not supported	30	46.9
<i>Diet Compliance</i>	Compliance	40	62.5
	Not Compliance	24	37.5

According to Table 1's data, the majority of respondents are female, between the ages of 60 and 74, with just a high school diploma or less, and with DM for at least five years. They also report having strong family support.

During the data collection stage, a number of respondents stated that their families had supported them by reminding them to limit, avoid, or restrict their intake of sugary foods. The family is likewise open to hearing the

grievances of the respondents. Furthermore, respondents believed it to be simple if the responder approached the family for assistance. In families with diabetes mellitus, Irawati's research (2020) demonstrates that patients have a higher likelihood of adhering to a diet program if their families are supportive of them. The death rate from diabetes mellitus can be decreased in part by taking this action. Apart from preventing consequences including renal failure, heart failure, hypertension, stroke, and others, maintaining stable blood sugar levels in people with diabetes mellitus can also improve overall health. The 3Js—amount of food consumed, type of food consumed, and eating schedule—are the cornerstones of the diabetes mellitus diet. Blood glucose levels can rise when high-glucose foods are consumed and irregular mealtimes are followed (Eltrikanawati, 2022).

**Table 2 Relationship between Family Support and Diet Compliance in Elderly Diabetes Mellitus in East Jakarta in May 2023**

Family support	Dietary Compliance				Total	P Value	OR (95% CI)
	Compliance		Not Compliance				
	N	%	n	%			
Supported	26	76.5%	8	23.5%	34	100%	
Not Supported	14	46.7%	16	53.3%	30	100%	0.028
<b>Total</b>	40	62.5%	24	37.5%	64	100%	3,714 (1.276-10.816)

The study's findings, which are presented in Table 4, indicate that the majority of participants—26 responders, or 76.5%—received strong family support and followed the DM diet. Table 4.5's statistical test analysis findings using Chi-square demonstrate that the P-Value is 0.028. There is a correlation between family support and dietary compliance in older adults with diabetes mellitus, as indicated by the p-value of 0.05 for this value. Further research yielded an odds ratio (OR) value of 3,714, indicating that older adults receiving low-income family assistance are 3,714 times more likely to break dietary rules than older adults receiving supportive families. A non-dietary component that may influence adherence is family support (Dwi & Rahayu, 2020). The findings of this study are consistent with those of Irawati's (2020) investigation, which discovered a connection between family support and DM diet adherence. This study also found an OR value of 5.055, which indicates that respondents who have strong family support are 5.005 times more likely to adhere to the diet than respondents who do not. Dietary adherence rises in direct proportion to family support (Go'o et al., 2020). According to Fitriana and Salviana's research (2021), patients who receive support from their families are more likely to stick to the DM diet because long-term therapy and care can make patients bored.

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In older persons with diabetes, this study revealed a link between family support and dietary adherence. The study's findings advance scientific understanding, particularly in the field of geriatric nursing. In order for older people to continue to adhere to their dietary regimen, it is important for families of older persons with Diabetes Mellitus to increase both their material and non-material support. The findings of this study can be used as a guide for nurses when addressing dietary compliance in senior citizens with diabetes mellitus.

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